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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,415

06/13/2006

Ties Van Bommel

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6375

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04/14/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

BOWMAN, ANDREW J

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

04/14/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/596,415	<b>Applicant(s)</b> VAN BOMMEL ET AL.	
	<b>Examiner</b> ANDREW BOWMAN	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 6/13/06.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Claims 1-8 remain pending in the current application.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lefaux et al. (Hydrogel Contact Deposition of Polymeric Multilayers, SPE Proceedings on Hydrogel Contact Printing, 2001, pg. 2 as presented).

a. Regarding claims 1-3 and 5-7 Lefaux shows that it is well-known to create microprinting stamps by the copolymerization of hydroxyethylacrylate and ethylene glycol dimethacrylate (EGDMA) (crosslinker) (pg. 2, two sentence). Lefaux fails to teach the use of polyethylene glycol dimethacrylate (PEGMDA) as the crosslinker and is silent regarding the crosslink density. However, it is the position of the examiner that it is well-known that the primary difference between EGDMA and PEGMDA is the length of the polymerized or polymerizable chain (1 unit for EDGMA and more than one unit for PEGDMA). They both chemically react with hydroxyethylacrylate in exactly the same way, by the same chemical reactions. The chain length of the polymer directly affects the stiffness and rigidity of the finished, making it more or less capable of being swelled, which would affect the ability of the stamp to transfer and deposit coating materials. Therefore, it would be obvious for one of ordinary skill in the art to optimize the chain length of the ethylene glycol dimethacrylate molecule used in order to modify the stiffness and rigidity of the stamp produced. Further, in the absence of criticality of the specific polymer concentration or crosslink density required by the claims, it would also be obvious for one of ordinary skill in the art optimize the amount of polymer molecule used in the production of the stamp, in order to optimize the attained crosslinking density of the stamp, which would in turn also

affect the stiffness and rigidity of the finished stamp, which in turn would make the stamp more or less capable of being swelled, which would effect the ability of the stamp to transfer and deposit coating materials.

b. Regarding claim 4, it is the position of the examiner that based on the method used to produce the stamp of Lefaux, that it would be self-supporting.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lefaux et al. (Hydrogel Contact Deposition of Polymeric Multilayers, SPE Proceedings on Hydrogel Contact Printing, 2001, pg. 2 as presented) in view of Turner et al. US5948621.

c. Regarding claim 8, the teachings of Lefaux are as shown above. Lefaux fails to teach the transfer of biomolecules using the stamp. However, Turner shows that it is well-known to use hydrogel micro-printing stamps to transfer biomolecules onto substrates (abstract). Further Lefaux described the methodology for using his stamp as swelling it in a PAA or PAH solution (pg.2 paragraph 1) which contains water (last paragraph, pg. 1) and loading the material to be transferred and transferring the loaded material (under Discrete-Contact printing, pg. 2). One of ordinary skill in the art would be motivated to use the stamp and methodology of Lefaux to transfer the biomaterials of Turner because Turner shows that these types of stamps are suitable for this form of transfer and would be expected to function with a high degree of success.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW BOWMAN whose telephone number is

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(571)270-5342. The examiner can normally be reached on Monday through Friday (7:30 to 5:00)EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/  
Supervisory Patent Examiner, Art Unit 1792

Andrew J Bowman  
Examiner  
Art Unit 1792

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